DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R4–ES–2013–0010; 4500090023]

RIN 1018-BD54

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Spring Pygmy Sunfish

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the spring pygmy sunfish (*Elassoma alabamae*) under the Endangered Species Act of 1973 (Act), as amended. In total, approximately 10.9 kilometers (6.7 miles) of streams and 1,330 acres (538 hectares) in Limestone and Madison Counties, Alabama, fall within the boundaries of the critical habitat designation.

DATES: This rule is effective [INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION].

ADDRESSES: This final rule is available on the Internet at *http://www.regulations.gov* and *http://www.fws.gov/daphne*. Comments and materials we received, as well as some supporting documentation we used in preparing this rule, are available for public inspection at *http://www.regulations.gov*. All of the comments, materials, and documentation that we considered in this rulemaking are available by appointment, during normal business hours at: U.S. Fish and Wildlife Service, Alabama Ecological Services Field Office, 1208 Main Street, Daphne, AL 36526; telephone 251–441–5184.

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at *http://www.regulations.gov* at Docket No. FWS–R4–ES–2013–0010, and at the Alabama Ecological Services Field Office (*https://www.fws.gov/daphne*) (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we developed for this critical habitat designation will also be available at the Fish and Wildlife Service website and Field Office identified above, and may also be included in the preamble and at *http://www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: William Pearson, Field Supervisor, U.S. Fish and Wildlife Service, telephone 251–441–5184. If you use a telecommunications device for the deaf (TDD), call the Federal Relay Service at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Endangered Species Act of 1973 (Act), as amended, if we determine that a species is an endangered or threatened species, we must designate critical habitat to the maximum extent prudent and determinable. We listed the spring pygmy sunfish as a threatened species on October 2, 2013 (78 FR 60766). Designations of critical habitat can only be completed by issuing a rule.

Basis for this rule. Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat.

This rule designates critical habitat for the spring pygmy sunfish. The critical habitat areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for spring pygmy sunfish. This rule designates approximately 10.9 kilometers (6.7 miles) of streams and 1,330 acres (538 hectares) of adjacent lands as critical habitat for the spring pygmy sunfish in three units.

Peer review and public comment. We sought comments from independent specialists to ensure that our designation is based on scientifically sound data and analyses. We obtained opinions from three knowledgeable individuals with scientific expertise to review our technical assumptions, analysis, and whether or not we had used the best scientific data available. These peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated into this final designation of critical habitat. We also considered all comments and information we received from the public during the comment periods for the proposed designation.

Previous Federal Actions

On October 2, 2012, we published in the *Federal Register* (77 FR 60180) a proposed rule to list the spring pygmy sunfish (*Elassoma alabamae*) as threatened under the Act (16 U.S.C. 1531 *et seq*.). Together with the proposed listing, we proposed designation of two critical habitat units in Limestone County, Alabama.

On April 29, 2013, we published in the *Federal Register* (78 FR 25033) a document that: (1) Reopened the comment period on the October 2, 2012, proposed rule

for an additional 30 days, ending May 29, 2013; and (2) proposed a small reduction to the size of critical habitat Unit 1 based on public input.

On October 2, 2013, we published the final rule listing the species as threatened (78 FR 60766).

On February 5, 2014, we published in the *Federal Register* (79 FR 6871) a document that: (1) Reopened the comment period on the proposed designation of critical habitat for the spring pygmy sunfish for an additional 30 days, ending March 7, 2014; and (2) described potential exclusions to the proposed critical habitat designation for lands covered by candidate conservation agreements with assurances (CCAAs).

On November 5, 2018, we published in the *Federal Register* (83 FR 55341) a document that: (1) Reopened the comment period on the proposed designation of critical habitat for the spring pygmy sunfish for an additional 30 days, ending December 5, 2018; and (2) proposed to add Unit 3, an area where a population of the spring pygmy sunfish was discovered in 2015, in Madison County, Alabama, to the critical habitat designation.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the spring pygmy sunfish during four comment periods, totaling 150 days (see **Previous Federal Actions**, above). We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and draft economic analysis during these comment periods.

During the comment periods, we received 31 comments in response to the proposed critical habitat designation. We did not receive any requests for a public

hearing.

Peer Review

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from three knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology. We received responses from all three peer reviewers.

We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding critical habitat for the spring pygmy sunfish. Two peer reviewers that commented on critical habitat concurred with our proposed designation of Unit 2 (Pryor Spring), which was unoccupied at the time of listing. All substantive information provided to us during comment periods has either been incorporated directly into this final rule or is addressed below.

Peer Reviewer Comments

(1) *Comment*: There are three areas under candidate conservation agreements with assurances (CCAAs) specifically designed for the spring pygmy sunfish (Belle Mina Farms Ltd., McDonald Farms, and Horton Farm), all in proposed Unit 1. One peer reviewer and five public commenters stated that these areas should not be excluded from the critical habitat designation, because exclusion would be less protective of the sunfish and its habitat.

Our Response: Under section 4(b)(2) of the Act, the Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based

on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

We find that the areas under the three CCAAs meet the above criteria for exclusion. Under the CCAAs, the landowners implement conservation measures to address threats to the species' habitat from agriculture, which is the land use adjacent to a majority of the habitat in Unit 1. These measures (described in greater detail in our final rule listing the spring pygmy sunfish as a threatened species at 78 FR 60766 (October 2, 2013)) include maintaining vegetated buffer zones; restricting timber harvest and cattle grazing; and refraining from any deforestation, industrial or residential development, aquaculture, temporary or permanent ground-water removal installations, and other potentially damaging actions without prior consultation with the Service. With a critical habitat designation but without CCAAs in place, conservation of the species' habitat on private lands would not be assured except when projects that are federally authorized, funded, or carried out (those with a Federal nexus) occur within the area of the critical habitat designation. In practice, projects with a Federal nexus occur primarily on Federal lands or for projects undertaken by Federal agencies. Because projects in spring pygmy sunfish habitat on private lands are not likely to have a Federal nexus, the benefit of the CCAAs outweighs the designation of critical habitat (see discussion under *Exclusions Based on Other Relevant Impacts*, below).

(2) *Comment*: One peer reviewer, as well as several other commenters, noted that the CCAAs were voluntary and of short duration (20 to 25 years), and landowners could opt out of the agreements at any time, which could diminish protection of spring pygmy sunfish habitat.

Our Response: We acknowledge that the CCAAs are voluntary and could be terminated by the landowners at any time, although there are no current plans to terminate any of the agreements prior to their expiration date. Should termination of a CCAA occur, the area previously covered by that CCAA could be reproposed for addition to the critical habitat designation. We acknowledge that, in the absence of a critical habitat designation or a CCAA, private landowners may not actively conserve critical habitat as they would if a CCAA were in place. However, habitat would still be protected through sections 7 and 9 of the Act. Because the habitat currently under the CCAAs is occupied by the species, any consultation prompted by Federal actions will need to ensure minimization of take and that the species will not be likely to become extinct as a result of those activities, which will require measures to protect the habitat that supports the species. It would not be legal for private landowners to intentionally destroy the occupied habitat because that would result in take prohibited by section 9 of the Act.

(3) *Comment*: One peer reviewer and one other individual commented that the list of plant species identified as providing important habitat for the spring pygmy sunfish in our October 2, 2012, proposed rule was incorrect. The peer reviewer stated that information indicates that the nonindigenous parrot feather, *Myriophyllum* spp., may be detrimental to the spring pygmy sunfish and should not be considered important habitat for the species. The other commenter suggested we should emphasize the importance of fine filamentous-leaved vegetation and its use by the spring pygmy sunfish for foraging, spawning, and providing protection from predators.

Our Response: We have made corrections in the discussion under **Physical or Biological Features** (which were also referred to as primary constituent elements in our October 2, 2012, proposed rule), below, and in all discussions related to suitable plant habitat for the spring pygmy sunfish, based on these comments. We revised the list of plant species and identified those most important to the sunfish, including *Ceratophyllum echinatum* (spineless hornwort), *Myriophyllum heterophyllum* (two-leaf water milfoil), and *Hydrilla verticillata* (native hydrilla), and we removed the reference to *Myriophyllum* spp., which could be mistakenly referenced to the nonindigenous parrot feather that is in the same genus as the native two-leaf water milfoil. We also noted the importance of the presence of fine filamentous-leaved vegetation to the spring pygmy sunfish for breeding, rearing young, foraging, and providing protection from predators in our discussion of habitat (see **Physical or Biological Features**, below, for more information).

(4) *Comment*: One peer reviewer questioned our use of 80 degrees Fahrenheit (°F) as the upper limit of a suitable water temperature for the spring pygmy sunfish in the description of physical or biological features essential to the conservation of the species. The commenter stated that prolonged exposure to such high temperatures can shorten the spring pygmy sunfish's lifespan, to the point of potentially interfering with successful reproduction and recruitment.

Our Response: We agree with the peer reviewer, and we have removed the reference to 80 °F from our description of physical or biological features essential to the conservation of the species (see **Physical or Biological Features**, below).

Public Comments

(5) *Comment*: One commenter asserted that the spring pygmy sunfish would

likely become extinct if the CCAA areas were not included in the critical habitat designation, as omitting these areas from the critical habitat designation would not adequately protect the species' habitat.

Our Response: We have concluded that the existing protections under the Act, plus the protections afforded by the CCAAs, will be sufficient to prevent extinction of the spring pygmy sunfish. As discussed above (see *Peer Review*), in currently occupied habitat, even in the absence of a critical habitat designation, the species is protected through sections 7 and 9 of the Act because it is listed as a threatened species. The CCAAs provide additional protections because conservation measures to protect habitat are implemented for the duration of the CCAA; without a CCAA, measures to protect the species' habitat in designated critical habitat or in occupied habitat occur only when there is a project with Federal nexus, which will be a rare occurrence on private lands. Additionally, the entire population in Blackwell Swamp and a portion of the population in Beaverdam Creek, adjacent to the CCAA areas, will remain within designated critical habitat.

(6) *Comment*: One commenter was concerned that the draft economic analysis "concedes key uncertainties which would result in a major underestimation of costs particularly if additional restrictions such as groundwater or surface water withdrawal limits are included."

Our Response: As described in section 2.3 of the final economic analysis (FEA), there is currently limited information regarding the regional hydrology of the study area. In order for the Service to determine whether a particular withdrawal may affect the sunfish or its critical habitat, and to subsequently recommend how adverse modification

of the critical habitat can be avoided, additional information would be required clarifying how the location and volume of withdrawals affects the hydrologic flow regime (magnitude, frequency, duration, and seasonality of discharge over time) within the streams and springs designated as critical habitat. As described in the text box titled "Incremental Effects of Critical Habitat on Water Extraction Activities" in section 2.3 of the FEA, until such a time that this information is available, the Service does not anticipate that the listing or this critical habitat designation for the sunfish will result in limitations on water withdrawals within the study area. Considering this, attempting to monetize costs associated with limitations on water withdrawals would be speculative.

(7) *Comment*: One commenter provided information on the potential benefits of the proposed critical habitat designation, stating that the Service should take into consideration the economic benefits of protecting habitat for the sunfish, such as ecosystem services and preservation of riparian buffers.

Our Response: As detailed in section 2.5 of the FEA, the Service does not forecast additional conservation efforts being implemented due to critical habitat designation for the sunfish. As a result, no changes in economic activity or land or water management are expected to result from this critical habitat designation. Absent these changes, the FEA does not forecast incremental economic benefits from this rulemaking.

Comments from States

Section 4(i) of the Act states, "the Secretary [of the Interior] shall submit to the State agency a written justification for his failure to adopt regulations consistent with the agency's comments or petition." We received two comments from individuals who are employees of a State agency (Geological Survey of Alabama). One of these individuals

was also a peer reviewer (see "Peer Reviewer Comments," above). The State provided additional information on the species' habitat, specifically related to hydrology, but did not state a position on the critical habitat designation. State comments regarding the species' habitat in general and the efficacy of CCAAs as a conservation instrument given the threat of urban growth were addressed in our final listing rule published on October 2, 2013 (78 FR 60766).

Summary of Changes from Proposed Rule

In preparing this final rule, we reviewed and fully considered comments from the public and peer reviewers that we received concerning the proposed critical habitat designation. Based on information we received from a private landowner and the discovery of a boundary error in Unit 1, followed by further biological examination of the land, we removed approximately 67.6 acres (ac) (27.3 hectares (ha)) from proposed Unit 1. The rationale for this change is described in more detail in our April 29, 2013, *Federal Register* publication (78 FR 25033).

Under section 4(b)(2) of the Act, we are excluding from critical habitat designation areas in Unit 1 that are covered under the Belle Mina Farms Ltd., McDonald Farms, and Horton Farm CCAAs, as proposed in our February 5, 2014, *Federal Register* document (79 FR 6871), because the Secretary finds that the benefits of excluding these areas outweigh the benefits of including them in the critical habitat designation. In total, these three exclusions reduce the critical habitat in Unit 1 from approximately 546 ha (1,348 ac) to 342 ha (845 ac).

Based on discovery of a previously unknown population of the spring pygmy sunfish in Blackwell Swamp, we are designating as critical habitat an additional unit,

Unit 3, as we proposed on November 5, 2018 (83 FR 55341). Unit 3 contains 123 ha (303 ac) wholly within the Wheeler National Wildlife Refuge.

We have revised two of the physical or biological features (formerly primary constituent elements) based on information we received from peer reviewers and other commenters. In the physical or biological feature concerning water quality, we changed the temperature parameters for the spring pygmy sunfish as a result of comments we received from a peer reviewer who stated that the upper temperature range was incorrect (see Comment 4, above, for more information). We also removed the conductivity measurement from this physical or biological feature because, upon further analysis, we determined it did not accurately reflect the life parameters for the species. In addition, we have revised the associated vegetation described under the relevant physical or biological feature to identify plant species most important to spring pygmy sunfish habitat, as a result of comments from a peer reviewer and another commenter (see Comment 3, above, for more information). Finally, for clarity, we present the prey base, or food, for the spring pygmy sunfish as a separate physical or biological feature in this final rule rather than grouping it with the vegetation feature.

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (i.e., range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such

designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the specific features that support the life-history needs of the species, including but not limited to, water characteristics, soil type, geological features, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and

connectivity.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Physical or Biological Features

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or

biological features (PBFs) that are essential to the conservation of the species and which may require special management considerations or protection. For example, physical features might include gravel of a particular size required for spawning, alkali soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic needed to support the life history of the species. In considering whether features are essential to the conservation of the species, the Service may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

We derived the specific PBFs for the spring pygmy sunfish from studies of this species' habitat, ecology, and life history as described in the final listing rule (78 FR 60766; October 2, 2013) and in the information presented below. There is limited information on this species' specific habitat requirements, other than that it requires springs and connecting spring-fed reaches and wetlands; an adequate groundwater and

surface water hydrology; and clean, cool water and associated vegetation and invertebrates. To identify the physical and biological needs of the species, we have relied on current conditions at the locations where the species exists today and the limited information we have on historical sites available on this species and its close relatives, and factors associated with the decline and extirpation of this and other spring-associated fish species. We have determined that the spring pygmy sunfish requires the following PBFs.

Space for Individual and Population Growth and for Normal Behavior

Spring pygmy sunfish depend on geomorphically stable spring systems including the spring head (water source), spring run, and spring pools. The spring systems used by the species also include transition zones between these features on moderately low-gradient topographic slopes that feather out into spring-fed wetland pools. The spring pygmy sunfish inhabits spring pools, spring runs, and spring-fed streams and pools with substrates of silt, sand, and gravel.

The current range of the spring pygmy sunfish is reduced to localized sites due to fragmentation of the spring systems on which it depends. Fragmentation of the species' habitat has changed the aquatic vegetation composition of the species' habitat; has isolated populations; and has reduced available space for spawning, rearing of young, concealment, and foraging. As a result, the spring pygmy sunfish's adaptive capability has been reduced, and the possibility of local extinctions has increased (Burkhead *et al.* 1997, pp. 397–399; Hallerman 2003, pp. 363–364). Connectivity of spring systems maintains spawning, foraging, and resting sites, and allows for gene flow throughout the population. The spring pygmy sunfish exhibits greatest relative abundance nearest the

spring emergence, and reproduction is restricted, or closely tied, to localized conditions at spring emergences (Sandel *et al.* 2008, pp. 7–15). Genetic variation and diversity within a species are essential for recovery, adaptation to environmental changes, and long-term viability (capability to live, reproduce, and develop) (Harris 1984, pp. 93–107; Noss and Cooperrider 1994, pp. 282–297; Fluker *et al.* 2007, p. 2). Long-term viability is founded on space for numerous interbreeding, local populations throughout the range (Harris 1984, pp. 93–107).

Therefore, based on the information above, we identify springs and connecting spring-fed reaches and wetlands of geomorphically stable, relatively low-gradient, headwater springs with spring heads (water sources), spring runs, and spring pools that filter into shallow vegetated wetlands to be an essential PBF for the spring pygmy sunfish. The connectivity of these habitats is essential in accommodating feeding, breeding, growth, and other normal behaviors of the spring pygmy sunfish and in promoting gene flow within the populations.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Water Quality

Exceptional water quality at the spring heads (water source) and pools, and adequate water quality throughout the habitat, maintained by unobstructed water flow through connected spring habitats, are essential for normal behavior, growth, and viability during all life stages of the spring pygmy sunfish. Suitable habitat conditions for the spring pygmy sunfish have not been investigated thoroughly; however, some data specific to the species are available for the following water quality parameters: pH, water temperature, and alkalinity (capacity of solutes in an aqueous system to neutralize acid as

bicarbonate (HCO3)). Spring pygmy sunfish males establish territories and begin spawning in March and April, when water quality parameters are within a suitable pH range of 6.0 to 7.7, and water temperatures are from 57.2 to 68 °F (14 and 20 °C) (Sandel 2007, p. 2; Mettee 2008, p. 36; Petty *et al.* 2011, p. 4).

Essential water quality attributes for the spring pygmy sunfish may be inferred from those of other fish species living in medium water flow streams along with baseline spring and subsurface water quality information obtained from systems within Limestone County, adjacent counties, and elsewhere. Based on yearly averages, which may not reflect optimal conditions, these include: (1) Dissolved oxygen levels greater than 6 parts per million (ppm); (2) water temperatures of 57.2 to 68 °F (15 to 20 °C); and (3) water clarity (particulates in water column) less than 15 Nephelometric Turbidity Units (NTU) and 20 milligrams per liter (mg/l) total suspended solids (TSS) (Teels *et al.* 1975, pp. 8–9; Ultschet *et al.* 1978, pp. 99–101; Ingersoll *et al.* 1984, pp. 131–138; Chandler *et al.* 1987, pp. 56–57; Kundell and Rasmussen 1995, pp. 211–212; Henley *et al.* 2000, pp. 125–139; Meyer and Sutherland 2005, pp. 43–64; Sandel 2007, p. 2; McGregor *et al.* 2008, pp. 7–9; Mettee 2008, p. 36; Knight 2011, pp. 3–8; Rakes *et al.* 2011, p. 4).

Temperature greatly influences the form and toxicity of ammonia and chlorine. Higher temperatures result in a shift from the nontoxic ammonium ion (NH4\+\) to highly toxic ammonia (NH3). Chlorine is also more toxic at higher temperatures (Hoffman *et al.* 2003, p. 681). Thus, higher temperatures during the summer, along with drought and reduced spring flows, may intensify impacts from these two chemicals on the life stages and habitats of the spring pygmy sunfish.

Therefore, we identify the following water quality parameters to be an essential

PBF for the spring pygmy sunfish, based on yearly averages: Optimal temperatures of 57.2 to 68 °F (14 to 20 °C); pH of 6.0 to 7.7; dissolved oxygen of 6.0 ppm or greater; and low concentrations of free or suspended solids with turbidity measuring less than 15 NTU and 20 mg/l TSS.

Water Quantity

Water flow and water quantity may also vary according to season, precipitation events, and human activities, such as groundwater and surface water extraction, within the recharge area of the spring system. Agriculture, industrial or human consumption, silviculture, maintenance of roadways and utilities, and urbanization and industrialization projects are activities that may use water that would otherwise recharge spring systems. Connectivity of spring systems is also important for maintaining water quality. Adequate groundwater and recharge rates, and spring water outflow, are important to the conservation of the spring pygmy sunfish.

Therefore, based on the information above, we identify a hydrologic flow regime (magnitude, frequency, duration, and seasonality of discharge overtime) necessary to maintain spring habitats to be an essential PBF for the spring pygmy sunfish. The instream flow from groundwater sources (spring and seep) maintains a velocity and a continuous daily discharge from the aquifer that allows for connectivity between habitats. Instream flow is stable and does not vary during water extraction, and the aquifer recharge maintains adequate levels to supply water flow to the spring head. The flow regime does not significantly change during storm events.

Food

All pygmy sunfish species stalk invertebrates by using the dense submergent

vegetation within the spring system to conceal their foraging activity (Walsh and Burr 1984, pp. 45–46). The aquatic vegetation provides a ready source of food (Petty *et al*. 2011, p. 2) and habitat for invertebrates. Daphnia, amphipods, chironomid larvae, and small snails are the major components of the spring pygmy sunfish's diet (Slate 1993, p. 3; Sandel 2009, p. 9). Therefore, we identify these food items as a PBF for the species.

Cover or Shelter and Sites for Breeding, Reproduction, or Rearing

The spring pygmy sunfish relies heavily on aquatic and emergent vegetation in the shallow water within the runs and pools of the spring systems. The species has an affinity for patches of dense filamentous submergent vegetation for breeding, reproduction and growth of offspring; concealment from predators; and foraging (Sandel 2008, pp. 3-4; Kuhajda *in litt*. 2012). Important species of aquatic filamentous submergent vegetation include *Ceratophyllum echinatum* (spineless hornwort), *Myriophyllum heterophyllum* (two-leaf water milfoil), and *Hydrilla verticillata* (native hydrilla); emergent vegetation includes clumps and stands of *Sparganium* spp. (bur reed), *Polygonum* spp. (smartweed), *Nasturtium officinale* (watercress), *Juncus* spp. (rush), and *Carex* spp. (sedges); semi-emergent vegetation includes *Nuphar luteum* (yellow pond lily), *Utricularia* spp. (bladderwort), and *Callitriche* spp. (water starwort) (Mayden 1993, p. 11; Jandebeur 1997, pp. 42–44; Sandel 2011, pp. 3–5, 9–11). Sandel (2009, p. 14) noted that the concentration of spring pygmy sunfish was greatest in association with thick and abundant *Ceratophyllum echinatum* within the spring pool and that the species' abundance decreased as the distances from the spring pools increased.

Therefore, based on the information above, we identify aquatic, emergent and semi-emergent vegetation within the spring runs and submergent vegetation that is

adequate for breeding, reproducing, and rearing young; providing cover and shelter from predators; and supporting the prey base of aquatic macroinvertebrates eaten by spring pygmy sunfish to be an essential PBF for the spring pygmy sunfish.

Summary of Essential Physical or Biological Features

We have determined that the following PBFs are essential to the conservation of the spring pygmy sunfish:

(1) *Spring system*. Springs, and connecting spring-fed reaches and wetlands, that are geomorphically stable and relatively low-gradient. This includes headwater springs with spring heads (water source), spring runs, and spring pools that filter into shallow, vegetated wetlands.

(2) *Water quality*. Yearly averages of water quality with optimal temperatures of 57.2 to 68 °F (14 to 20 °C); pH of 6.0 to 7.7; dissolved oxygen of 6.0 parts per million (ppm) or greater; low concentrations of free or suspended solids with turbidity measuring less than 15 NTU and 20 mg/l TSS.

(3) *Hydrology*. A hydrologic flow regime (magnitude, frequency, duration, and seasonality of discharge over time) necessary to maintain spring habitats. The instream flow from groundwater sources (springs and seeps) maintains an adequate velocity and a continuous daily discharge from the aquifer that allows for connectivity between habitats. Instream flow is stable and does not vary during water extraction, and the aquifer recharge maintains adequate levels to supply water flow to the spring head. The flow regime does not significantly change during storm events.

(4) *Prey base, or food*. Macroinvertebrates including *Daphnia* spp., amphipods, chironomids (non-biting midges), or small snails.

(5) *Vegetation*. Aquatic, emergent and semi-emergent vegetation along the margins of spring runs and submergent vegetation that is adequate for breeding, reproducing, and rearing young; providing cover and shelter from predators; and supporting the macroinvertebrate prey base. Important species include:

(a) Submergent filamentous vegetation such as *Ceratophyllum echinatum* (spineless hornwort), *Myriophyllum heterophyllum* (two-leaf water milfoil), and *Hydrilla verticillata* (native hydrilla);

(b) Emergent vegetation such as *Sparganium* spp. (bur reed), *Polygonum* spp. (smartweed), *Nasturtium officinale* (watercress), *Juncus* spp. (rush), and *Carex* spp. (sedges); and

(c) Semi-emergent vegetation such as *Nuphar luteum* (yellow pond lily), *Utricularia* spp. (bladderwort), and *Callitriche* spp. (water starwort).

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection.

The above-described PBFs may require special management considerations or protection to reduce the following threats or potential threats: reduced groundwater/surface flow from water extraction; changes in the composition and abundance of vegetation in the spring system; alteration of the bottom substrate and normal sinuosity stream channels from fill material within the spring system and spring-fed wetlands for development projects; degradation of water quality from uncontrolled

discharge of stormwater draining agricultural fields, roads, bridges, and urban areas; careless agricultural practices, including unmanaged livestock grazing; and road, bridge, and utility easement maintenance (e.g., use of herbicides and resurfacing or sealant materials).

Special management considerations or protection are required within critical habitat areas to address these threats. Management activities that could ameliorate these threats include (but are not limited to) the following: establishing permanent conservation easements or land acquisition to protect the species on private lands; minimizing habitat disturbance, fragmentation, and destruction by maintaining suitable fish passage structures under roads; providing significant buffers around the spring components such as the spring head (water source), spring pool, and spring run; monitoring and regulating the withdrawal and use of groundwater and surface water; preserving recharge areas by increasing the permeable area for percolation of rainfall back into the aquifer; limiting impervious substrates; and minimizing water quality degradation by stormwater runoff with catchment basins, vegetated buffers along streams, and other appropriate best management practices.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical

habitat. We are designating critical habitat in areas within the geographical area occupied by the species at the time of listing in 2013. We also are designating specific areas outside the geographical area occupied by the species at the time of listing (in Pryor Spring), which were historically occupied, but are presently unoccupied, because we have determined that such areas are essential for the conservation of the species.

We began our determination of which areas to propose for critical habitat with an assessment of the critical life-history components of the spring pygmy sunfish, as they relate to habitat. We then evaluated current and historical sites to establish what areas are currently occupied and contain the PBFs that are essential to the conservation of the species and that may require special management considerations or protection, as well as unoccupied sites that might be essential for the conservation of the species. We reviewed the available information pertaining to historical and current distributions, life histories, and habitat requirements of this species. Our sources included surveys, unpublished reports, and peer-reviewed scientific literature prepared by the Alabama Department of Conservation and Natural Resources, Alabama Geological Survey, Limestone County Revenue Office, Athens State University, University of Alabama, the Service, and spring pygmy sunfish researchers and others, as well as information available on the Virtual Alabama website (*https://virtual.alabama.gov/*) and Geographic Information System (GIS) data (such as species occurrence data, habitat data, land use topography, digital aerial photography, and ownership maps).

Currently, occupied habitat is confined to two populations in Alabama: one in the upper Beaver Dam Spring/Creek complex in Limestone County, and one in Blackwell Swamp in Madison County. These two areas contain all of the PBFs to support life-

history functions essential to the conservation of the species. However, these populations are at risk of extirpation from stochastic events such as periodic droughts and from existing or potential human-induced events (*i.e.*, development, excessive water extraction, chemical contamination). To reduce the risk of losing either population through these processes, it is important to establish and re-establish additional populations in areas where suitable habitat exists. Therefore, we attempted to identify unoccupied spring/stream reaches that could be essential for the conservation of the spring pygmy sunfish. In doing so, we first considered the availability of potential habitat throughout the historical range that may be suitable for the survival and persistence of the species. We eliminated from consideration spring/stream reaches without any historical records of spring pygmy sunfish occurrences. We identified two sites with recorded historical occurrences of the spring pygmy sunfish: one in Pryor Springs in Limestone County, Alabama, and a second in Cave Springs in Lauderdale County, Alabama. The Cave Spring site was excluded from consideration because it was inundated with the formation of Wheeler Reservoir in 1939. However, the Pryor Spring/Branch site, which, prior to 2007, supported a population of spring pygmy sunfish west of Highway 31, was determined to have habitat sufficient to support the species' life-history functions and the only portion of the historical range in a position to support a reintroduction.

The currently unoccupied Pryor Spring/Branch system provides habitat for population reintroduction into a separate geographic area, which would increase population redundancy. Establishment of a third population would reduce the level of threat from stochastic events, thereby decreasing the risk of extinction and contributing

toward the species' eventual recovery. Accordingly, we determined that the Pryor Spring/Branch is essential for the conservation of the species and designate it as critical habitat.

We delineated the critical habitat unit boundaries by determining the appropriate length within these streams by identifying the upper spring head (water source), spring pool, spring run, spring-fed wetlands, seeps, and ephemeral streams draining into the spring systems. We digitized the area boundary based upon visual interpretation of wetland vegetation using ARCGIS. The high water mark in springs indicates stable flow under normal conditions. As defined at 33 CFR 329.11, the ordinary high water mark on nontidal rivers and streams is the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural water line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas. For the spring pools and associated spring-fed wetlands, the area was determined and delineated by the presence of emergent vegetation patterns and topography as noted on aerial photographs and topographical maps, and during field visits. In order to set the upstream and downstream limits of these critical habitat units, we used the spring head (water source) as the uppermost point, identified by topographic maps, field visits, and available landmarks (*i.e.*, bridges and road crossings). Locations of the spring pygmy sunfish below or downstream of the spring head (water source) were included in order to ensure incorporation of all potential sites of occurrence. These stream reaches were then digitized using 7.5' topographic maps and ARCGIS to produce the critical habitat maps.

When determining critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features for spring pygmy sunfish. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger a section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

We are designating as critical habitat lands that we have determined are occupied at the time of listing, contain sufficient physical or biological features to support life-history processes essential for the conservation of the species and may require special management, and lands outside of the geographical area occupied at the time of listing that we have determined are essential for the conservation of the species.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under **Regulation Promulgation**. We include more detailed information on the boundaries of the critical habitat designation in this preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *http://www.regulations.gov* at Docket No. FWS–R4–ES–2013–0010, on our website, *https://www.fws.gov/daphne*, and at the Alabama Ecological Services Field Office (see

FOR FURTHER INFORMATION CONTACT, above).

Final Critical Habitat Designation

We are designating three units as critical habitat for spring pygmy sunfish. Those three units are: (1) Beaverdam Spring/Creek, (2) Pryor Spring/Branch, and (3) Blackwell Swamp/Run. Units 1 and 3 were occupied at the time of listing, and Unit 2 was not occupied at the time of listing. Table 1 shows the approximate size and ownership of the units designated as critical habitat for the spring pygmy sunfish.

Table 1. Ownership of the Proposed Critical Habitat Units for the Spring Pygmy Sunfish.

Unit	**Location**	**Private ownership skm (smi); ha (ac)**	**Federal ownership skm (smi); ha (ac)**	**Total length skm (smi)**	**Total area ha (ac)**
1	Beaverdam Spring/Creek	0.8 (0.5); 41 (101)	4.4 (2.7); 301 (744)	5.2 (3.2)	342 (845)
2	Pryor Spring/Branch	0.2 (0.15); 8.1 (20)	3.1 (1.9); 65.6 (162)	3.4 (2.1)	73 (182)
3	Blackwell Swamp/Run	0 (0); 0 (0)	2.3 (1.4); 123 (303)	2.3 (1.4)	123 (303)
Total		1.0 (0.7); 49.1 (121)	9.8 (6.0); 489.6 (1,209)	10.9 (6.7)	538 (1,330)

Note: Sizes may not sum due to rounding; "skm" means stream kilometers, and "smi" means stream miles.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the spring pygmy sunfish, below.

Unit 1: Beaverdam Spring/Creek, Limestone County, Alabama

Unit 1 includes a total of 5.2 km (3.2 mi) of Beaverdam Spring/Creek, northeast of Greenbrier, Alabama, from the spring head (water source), 5.6 km (3.5 mi) north of Interstate 565, to 3.9 km (2.4 mi) south of Interstate 565. Unit 1 encompasses Moss,

Horton, and Thorsen springs. This unit includes a total of 342 ha (845 ac). A majority of this unit is composed of 4.4 km (2.7 mi) of stream and 301 ha (744 ac) of spring/creek complex owned by the Service as part of the Wheeler National Wildlife Refuge. A portion of Unit 1, consisting of 0.8 km (0.5 mi) of stream and a total area of 41 ha (101 ac), is privately owned.

To describe the layout of Unit 1, we have separated it into three subunits. Subunit A is a small, narrow strip of wetlands in an area of 7.2 ha (17.9 ac) on the northeastern side of the Unit 1. Subunit B covers 69 ha (170.4 ac) just to the north of I-565, and Subunit C covers 265.7 ha (656.6 ac) just to the south of I-565.

Unit 1 is currently occupied by the species and contains all of the PBFs essential to its conservation. This unit provides habitat for the spring pygmy sunfish with adequate numbers of spring pools, spring fed wetlands, and spring runs (PBF 1). Submergent, emergent, and semi-emergent types of aquatic vegetation are present in this unit (PBF 5), providing sites for shelter, spawning, and other essential life-history processes for the spring pygmy sunfish, as well as for the prey items for the species, which also are present in the unit (PBF 4). All water quality parameters (PBF 2) and instream flow levels (PBF 3) in Unit 1 are within a suitable range to support the species' needs for survival.

Special management considerations or protection may be required within Unit 1 to address reduced groundwater or surface flows, degradation of water quality, and sedimentation, which can change the composition and reduce abundance of native vegetation, alter bottom substrates, and, through deposition over time, modify the natural sinuosity or form of stream channels within the spring system. Sources of these stressors to spring pygmy sunfish are encroaching urbanization, industrialization activities,

inadequate stormwater management, water diversion, construction projects and maintenance activities, culvert and pipe installation, and other watershed and floodplain disturbances that increase erosion and release sediments or nutrients into the water.

Unit 2: Pryor Spring/Branch, Limestone County, Alabama

Unit 2 includes 3.4 km (2.1 mi) of Pryor Spring and Pryor Branch from the spring head, about 3.7 mi (5.9 km) south of Tanner, Alabama, and just east of Highway 31, downstream to the bridge where it intersects with Harris Station/Thomas L. Hammons Road. This also includes a total of 73.6 ha (182 ac) in area. Within this unit, almost 3.1 km (1.9 mi) of the stream reach (93 percent), and 65.6 ha (162 ac) of the land area (89 percent), are federally owned by the Tennessee Valley Authority and managed by the State as the Swan Creek Wildlife Management Area. The remaining 0.2 km (0.15 mi) of stream reach (7 percent) and 8.1 ha (20 ac) (11 percent) of land are privately owned.

Unit 2 is currently unoccupied but historically was a location for the spring pygmy sunfish. The Pryor Spring/Branch system contains scattered spring-influenced wetlands, spring pools, spring runs, and shallow water wetlands on the margins of small tributaries. Populations of spring pygmy sunfish were historically noted as small and isolated within specific habitat sites of Pryor Spring/Branch.

A portion of the spring head has been mechanically deepened and the banks steepened in order to promote water extraction for cropland irrigation. Nevertheless, there is significant flow of groundwater entering the system throughout the year from the springhead. Adequate aquatic vegetation occurs in areas throughout this spring system, providing potential habitat for the normal life stages and behavior of the spring pygmy sunfish and the species' prey sources. Water flow from the main springhead (water

source), along with other unidentified springs and seeps within the system, provides sufficient water quantity to allow for connectivity between spawning, rearing, foraging, and resting sites, promoting gene flow throughout the spring system. While the existence of PBFs is not necessary for the designation of unoccupied habitat, the presence of PBFs, even though not all are in optimal form, in portions of Unit 2 indicates Pryor Spring/Branch is a valuable site that can contribute toward conservation of the spring pygmy sunfish. Further, as this species is only known from two populations, it is important that additional populations be established as a buffer against extirpation at either known site from stochastic events, such as drought, or a catastrophic event, such as an accidental contaminant spill.

Therefore, we have determined this unit is essential for the conservation of the species because it provides potential for the re-establishment of an additional population of the spring pygmy sunfish, thereby reducing this species' risk of extinction and contributing its eventual recovery.

Unit 3: Blackwell Swamp/Run, Madison County, Alabama

Unit 3 includes a total of 123 ha (303 ac) of land and 2.3 stream km (1.4 stream mi), all of which is federally owned within the Wheeler National Wildlife Refuge in Madison County, Alabama. This unit is located about 4.3 km (2.7 mi) due west of the town of Triana. This unit is 0.96 km (0.6 mi) north of Blackwell Run's confluence with the Tennessee River; approximately 1 km (0.5 mi) south of Swancott Road SW; about 1 km (0.5 mi) west of Landess Circle; and just to the east of B. Road/County Line Road SW. Unit 3 is currently occupied by spring pygmy sunfish. The spring pygmy sunfish was not known from Blackwell Swamp until it was captured during surveys in 2015.

Based on the proximity of Blackwell Swamp to other localities where the species occurs or did occur, and the shared connection of these localities to the Tennessee River, we presume that the spring pygmy sunfish was present at the time of listing and that the population is native to the site. Unit 3 provides habitat for the spring pygmy sunfish via the spring systems of Blackwell Swamp, which include spring runs and a large spring-fed pool that was enlarged after Blackwell Spring Run was impounded.

Unit 3 contains all of the PBFs essential to the species' survival and eventual recovery. It is a spring system (PBF1) with adequate water quality (PBF 2), water quantity and flow (PBF 3), and a diversity of aquatic vegetation (PBF 5) to support the normal life stages and behavior of the spring pygmy sunfish and its prey sources (PBF 4). Wheeler National Wildlife Refuge actively manages water levels in Unit 3 to enhance use by waterfowl. The water in the unit is replenished by surface flow from runoff, a small stream in the northeast corner, and numerous spring seeps of the Blackwell Spring system. The Tennessee River does not influence the spring pool unless allowed to enter the pool through a water control structure, which may occur in the course of waterfowl management.

Special management considerations or protection may be required in Unit 3 to address degradation of water quality, and sedimentation, which can change the composition and reduce abundance of native vegetation, alter bottom substrates, and, through deposition over time, modify the natural sinuosity or form of stream channels within the spring system. Potential stressors to the spring pygmy sunfish and its habitat in this unit include structures, such as boat ramps; an unpaved, gravel-maintained, refuge road (11.7 km; 7.3 mi) circling the unit; and sewer, gas, and water easements, including a

City of Huntsville sewer line right-of-way to the east. Additional stressors outside and adjacent to the unit are the same as described for Unit 1.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

We published a final rule with a new definition of destruction or adverse modification on February 11, 2016 (81 FR 7214). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq*.) or a permit

from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Service Director's opinion, avoid the likelihood of jeopardizing

the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that result in a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of the spring pygmy sunfish. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of these species or that preclude or significantly delay development of such features. As discussed above,

the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the spring pygmy sunfish. These activities include, but are not limited to:

(1) Actions that would alter the geomorphology of the spring system and its associated habitats. Such activities could include, but are not limited to, instream excavation or dredging, impoundment, channelization, and discharge of fill materials. These activities could cause aggradation or degradation of the channel bed elevation or significant bank erosion and result in entrainment or burial of this species, destruction of associated aquatic vegetation, and other direct or cumulative adverse effects to this species and its life cycle.

(2) Actions that would significantly alter the existing flow regime, related aquifer, and recharge areas. Such activities could include, but are not limited to, impoundments; water diversion; channel constriction or widening; placement of pipes, culverts, or bridges; and groundwater and surface water extraction. These activities could eliminate or reduce the habitat necessary for growth, reproduction, and connectivity of spring pygmy sunfish populations.

(3) Actions that would significantly alter water chemistry or water quality (*e.g.*,

temperature, pH, contaminants, and excess nutrients). Such activities could include, but are not limited to, the unsustainable use or release of chemicals, such as pesticides and fertilizers and biological pollutants, into surface water or groundwater. These activities could alter water conditions that are beyond the tolerances of this species and result in direct or cumulative adverse effects to the species and its life cycle.

(4) Actions that would significantly alter streambed material composition and quality by increasing sediment deposition or filamentous algal growth. Such activities could include, but are not limited to, construction and maintenance projects of subdivisions, roads, bridges, stormwater systems, and utility easements; unsustainable livestock grazing and timber harvest; off-road vehicle use; and other watershed and floodplain disturbances that release sediments or nutrients into the water through stormwater runoff. These activities could eliminate or reduce habitats necessary for the growth and reproduction of the spring pygmy sunfish by causing excessive sedimentation and a decrease in water quality for the species and associated vegetation and prey base by nitrification, leading to excessive filamentous algal growth, turbidity, and an increase in water temperatures.

Exemptions

Application of Section 4(a)(3) of the Act

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan [INRMP] prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that

such plan provides a benefit to the species for which critical habitat is proposed for designation." There are no Department of Defense lands with a completed INRMP within the final critical habitat designation.

Consideration of Impacts under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive due to the protection from destruction of adverse modification as a result of actions with a Federal nexus, the educational benefits of mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation, and the continuation, strengthening, or encouragement of partnerships.

In the case of the spring pygmy sunfish, the benefits of critical habitat include

public awareness of the presence of the species and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for the spring pygmy sunfish due to the protection from destruction or adverse modification of critical habitat. Additionally, continued implementation of an ongoing management plan that provides conservation equal to or greater than a critical habitat designation reduces the benefits of including that specific area in the critical habitat designation.

We evaluate existing conservation plans when considering the benefits of exclusion. We consider a variety of factors including, but not limited to, whether the plan is finalized, how it provides for the conservation of the essential physical or biological features, whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future, whether the conservation strategies in the plan are likely to be effective, and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two to determine whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of the species. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we

consider the economic impact that may result from a designation of critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum (IEM) and screening analysis which, together with our narrative and interpretation of effects, constituted our draft economic analysis (DEA) of the proposed critical habitat designation and related factors (Industrial Economics, Inc. (IEc) 2013a). The analysis, dated March 14, 2013, was made available for public review and comment from April 29, 2013, through May 29, 2013 (78 FR 25033; April 29, 2013). The DEA addressed probable economic impacts of critical habitat designation for the spring pygmy sunfish. Following the close of the comment period, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Additional information relevant to the probable incremental economic impacts of critical habitat designation for the spring pygmy sunfish is summarized below and available in the final economic analysis (FEA, or screening analysis) for the spring pygmy sunfish (IEc 2013b), available at *http://www.regulations.gov*.

The intent of the FEA is to quantify the economic impacts generated by the critical habitat designation for the spring pygmy. The economic impact of the final critical habitat designation is analyzed by comparing scenarios both "with critical habitat" and "without critical habitat." The "without critical habitat" scenario represents the baseline for the analysis, considering protections already in place for the species (*e.g.*, under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The "with critical habitat" scenario describes the incremental impacts

associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat above and beyond the baseline costs; these are the costs we consider in the final designation of critical habitat.

The FEA also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of conservation activities on government agencies, private businesses, and individuals. The FEA measures lost economic efficiency associated with residential and commercial development and public projects and activities, such as economic impacts on water management and transportation projects, Federal lands, small entities, and the energy industry. Decision-makers can use this information to assess whether the effects of the designation might unduly burden a particular group or economic sector. The FEA considers those costs likely to occur in the 20 years following the designation of critical habitat, which was determined to be the appropriate period for analysis because limited planning information was available for most activities to forecast activity levels for projects beyond a 20-year timeframe. The FEA quantifies economic impacts of the spring pygmy sunfish's conservation efforts associated with the following categories of activity: (1) Residential, commercial, and industrial development; (2) transportation and utilities; (3) groundwater and surface water extraction; (4) silviculture, agriculture, and grazing; and (5) dredging, impoundment, and channelization.

The FEA estimates the present value of the total incremental cost of critical habitat designation is $160,000 over the next 20 years (assuming a 7 percent discount rate), or $15,000 on an annualized basis. The incremental impacts of critical habitat designation in Units 1 and 2 (Unit 3 is discussed below) will be limited to additional administrative costs to the Service, Federal agencies, and private third parties. Transportation and utility activities are likely to be subject to the greatest incremental administrative impacts (forecast to be $85,000), followed by development ($62,000) and silviculture, agriculture, and grazing ($18,000) (all estimates expressed as present values over 20 years, assuming a 7 percent discount rate). No incremental impacts are anticipated for dredging, impoundment, and channelization, as these activities have not occurred within the study area for the past 10 years and are not forecast to occur in the future.

The overarching uncertainty in this analysis is the potential future effect of the critical habitat designation on water withdrawals. There is currently insufficient hydrological information to link particular withdrawal events (*e.g.*, irrigated agriculture or municipal and industrial uses) with the PBFs of the critical habitat for the spring pygmy sunfish. As such, we are unable to determine the potential for a withdrawal to generate adverse modification of critical habitat at this time.

After the spring pygmy sunfish was discovered in Blackwell Swamp on Wheeler National Wildlife Refuge, we proposed to add Unit 3 to the critical habitat designation (83 FR 55341; November 5, 2018), which occurred after the FEA was complete. In areas where the spring pygmy sunfish is present, Federal agencies already are required to consult with the Service under section 7 of the Act on activities they authorize, fund, or

carry out that may affect the species. Therefore, the FEA prepared for Units 1 and 2 is not significantly affected by the addition of Unit 3 to critical habitat.

A copy of the IEM and screening analysis with supporting documents may be obtained by contacting the Alabama Ecological Services Field Office (see **ADDRESSES**) or by downloading from the Internet at *http://www.regulations.gov*.

Exclusions

Exclusions Based on Economic Impacts

The Service considered the economic impacts of the critical habitat designation. The Secretary is not exercising his discretion to exclude any areas from this designation of critical habitat for the spring pygmy sunfish based on economic impacts.

Exclusions Based on Impacts on National Security and Homeland Security

Section 4(a)(3)(B)(i) of the Act (see above) may not cover all Department of Defense (DoD) lands or areas that pose potential national-security concerns (*e.g.*, a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), national security or homeland security concerns are not a factor in the process of determining which areas meet the definition of "critical habitat." Nevertheless, when designating critical habitat under section 4(b)(2), the Service must consider impacts on national security, including homeland security, on lands or areas not covered by section 4(a)(3)(B)(i). Accordingly, we will always consider for exclusion from the designation areas for which DoD, Department of Homeland Security, or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns. No such requests have been made for this species.

Consequently, the Secretary is not exerting his discretion to exclude any areas from the final designation based on impacts on national security or homeland-security concerns.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether there are permitted conservation plans covering the species in the area such as HCPs, safe harbor agreements, or candidate conservation agreements with assurances (CCAAs), or whether there are non-permitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at the existence of tribal conservation plans and partnerships and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act

CCAAs are voluntary agreements designed to conserve candidate and listed species on non-Federal lands. In exchange for actions that contribute to the conservation of species on non-Federal lands, participating property owners are covered by an "enhancement of survival" permit under section 10(a)(1)(A) of the Act, which authorizes incidental take of the covered species that may result from implementation of conservation actions and specific land uses The Service also provides enrollees assurances that we will not impose further land, water, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the

agreements.

When we undertake a discretionary section 4(b)(2) exclusion analysis, we will always consider areas covered by an approved CCAA, and generally exclude such areas from a designation of critical habitat if three conditions are met:

(1) The permittee is properly implementing the CCAA, and is expected to continue to do so for its entire term. A CCAA is properly implemented if the permittee is, and has been, fully implementing the commitments and provisions in the CCAA, implementing agreement, and permit.

(2) The species for which critical habitat is being designated is a covered species in the CCAA, or very similar in its habitat requirements to a covered species. The recognition that the Service extends to an agreement for a similar species depends on the degree to which the conservation measures undertaken in the CCAA would also protect the habitat features of the similar species.

(3) The CCAA specifically addresses the habitat of the species for which critical habitat is being designated and meets the conservation needs of the species in the planning area.

We have determined that three CCAAs (Belle Mina Farms Ltd., McDonald Farms, and Horton Farm) fulfill all the above criteria, and thus, we are excluding from critical habitat designation non-Federal lands covered by these plans that provide for the conservation of the spring pygmy sunfish. These CCAAs cover 37 percent of the habitat for the species in the Beaverdam Spring/Creek complex (Unit 1). They ensure that, as long as the CCAAs are in existence, about 88 percent of the recently delineated recharge zone for Beaverdam Spring will remain in its present state as agricultural lands. The

CCAAs outline a variety of conservation measures that are being implemented, ranging from restriction of cattle access to protection of the riparian buffer adjacent to the spring and spring run habitat.

Benefits of Inclusion

By being included in critical habitat, the areas would be subject to consultation for Federal actions under the adverse modification standard. Activities with a Federal nexus outside of the purview of the CCAA activities would require section 7 consultation. These could include activities carried out by parties other than the permit holders, and projects such as road and right-of-way construction, stream channelization, and culvert construction. As previously noted, the spring pygmy sunfish faces threats from water withdrawal, and from potential large-scale industrial urbanization and residential development planned adjacent to its habitat from entities other than the CCAA permit holders. The use of best management practices outlined in the CCAA is an important measure in conserving the spring pygmy sunfish, particularly in situations of agricultural land use within the watershed and with the current landowners. However, if and when land use changes to industrialization and urbanization, as is planned in part of this area, the best management practices included in these CCAAs by themselves are inadequate to address the complex issues that can impact the spring pygmy sunfish and its habitat such as aquifer recharge, stormwater management, and chemical transport in association with development. Therefore, the primary benefit of section 7 consultation and any critical habitat designation is to address actions outside the scope of the CCAAs and the control of the permit holders (*e.g.*, industrial and residential development adjacent to CCAA controlled lands, utility line and road development, and adjacent water withdrawal).

As mentioned earlier in this document and in the FEA, the Service does not anticipate additional requirements for critical habitat beyond those required for the species being listed. However there could be an incremental benefit to the species from the resultant section 7 consultation required by projects other than those conducted in accordance with the CCAAs. Any additional benefits of critical habitat inclusion in the CCAA areas would be small, because those benefits would be added to the benefits of the best management practices already required by the CCAAs, and a section 7 consultation within a CCAA area will be, at most, a rare occurrence (see *our response* to comment 1, under Peer Review Comments).

An additional benefit of inclusion of CCAA-enrolled lands in critical habitat is that the critical habitat (and its incremental benefit under section 7) will remain in place regardless of whether or not the CCAAs persist. Final critical habitat designation becomes Federal regulation, while these CCAAs can be terminated with 30-days' written notice. If the CCAAs are terminated, the associated permit would no longer be valid, and the full protection of sections 7 and 9 of the Act would be in effect in the areas currently covered. However, there would nonetheless be a slight incremental benefit to having critical habitat in this scenario through the benefits critical habitat provides under section 7 of the Act.

An additional benefit of including these CCAA-enrolled lands in a critical habitat designation is that the designation could serve to educate landowners, State and local governments, and the public regarding the importance of this area to spring pygmy sunfish conservation. Critical habitat designation, including the CCAA-enrolled lands, and publication of the maps identifying the area that contains the physical and biological

features needed for the species' life-history processes, could be beneficial as we work with our partners to avoid and minimize the impact of any development on this species and its habitat early in the process. However, through the publication of the proposed critical habitat rule and this final critical habitat rule, we have publicly identified the areas that are essential to the conservation of the spring pygmy sunfish, and we will continue to work closely with the City of Huntsville and project applicants.

Benefits of Exclusion

The large majority of occupied habitat for this species remains on privately owned lands enrolled under these CCAAs. Partnership with these landowners is absolutely essential to conserving the spring pygmy sunfish. The benefits of excluding the CCAA-enrolled lands from critical habitat can strengthen the existing relationship between these landowners and the Service, which, as outlined above, has already led to many conservation benefits for the species. Exclusion will likewise improve the potential to enroll other landowners who own land essential to the spring pygmy sunfish.

Additionally, the designation of critical habitat could have an unintended negative effect on the Service's relationship with other non-Federal landowners that own areas identified as essential to the spring pygmy sunfish but that are not enrolled in CCAAs due to the perceived imposition of redundant government regulation. If lands within the area covered by the CCAA for the benefit of the species are designated as critical habitat, it could have a dampening effect on our continued ability to form new partnerships with future participants, including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement various conservation actions (such as CCAAs) and other conservation plans (particularly large,

regional conservation plans that involve numerous participants or address landscape-level conservation of species and habitats) that we would be unable to accomplish otherwise.

When we evaluate whether a current land management or conservation plan provides adequate management or protection, we consider a variety of factors, including, but not limited to, whether the plan is finalized, how it provides for the conservation of the essential physical or biological features, whether there is reasonable expectation that the conservation management strategies actions contained in a management plan are likely to be effective, and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information. These CCAAs actively protect the spring pygmy sunfish from many of the current threats the species faces. The CCAAs have been in place for approximately 5 years, and thus far, the terms and conditions of the agreements have been met. Therefore, the plans are currently providing a benefit to the spring pygmy sunfish, and it is expected that they will continue to do so for their duration.

Benefits of Exclusion Outweigh Benefits of Inclusion

The Secretary has determined that the benefits of excluding the areas covered by the Belle Mina Farms Ltd., McDonald Farms, and Horton Farm CCAAs from the designation of critical habitat for the species outweigh the benefits of including the covered areas in critical habitat. Since these CCAAs were approved in early 2014, the landowners have been carrying out conservation activities benefitting the spring pygmy sunfish that may not have been carried out otherwise (benefits that are not related to section 7 protection under the Act). The landowners are committed to the CCAAs, and

through monitoring and collaboration, we are securing data and scientific information to better inform decisions. The CCAAs cover only non-Federal lands. Any Federal nexus on these lands would likely result from actions not covered by the CCAA. Thus, there would still be need for section 7 consultation on projects outside of the purview of the CCAA activities that have a Federal nexus as a result of Federal actions, authorizations, or funding. However, the benefits of inclusion in critical habitat at these sites would be minimized because they are occupied by the species and section 7 consultation will still be invoked to consider the project effects on the species.

Exclusion of these lands from critical habitat will help foster the partnership we have developed with the landowners that own the majority of occupied spring pygmy sunfish habitat. Recognizing the important contributions of our conservation partners through exclusion from critical habitat helps to preserve these partnerships, and helps foster future partnerships for the benefit of this and other listed species, the majority of which do not occur on Federal lands; we consider this to be a substantial benefit of exclusion. For these reasons, we have determined that the benefits of exclusion of these CCAAs outweigh the benefits of inclusion for the spring pygmy sunfish.

Exclusion Will Not Result in the Extinction of the Species

We have concluded that the existing protections under the Act, plus the protections afforded by the CCAAs, will be sufficient to prevent extinction of the spring pygmy sunfish. In the absence of critical habitat, the areas will still be protected through sections 7 and 9 of the Act due to the presence of the species. The CCAAs provide an additional protection to the species because conservation measures to protect habitat are implemented for the duration of the CCAA, whereas without a CCAA, measures to

protect the species' habitat in critical habitat or in occupied habitat occur only when there is a project with Federal nexus, which will be a rare occurrence on private lands. Additionally, one population and a portion of another population will remain within designated critical habitat.

Based on the information provided by entities seeking exclusion, as well as any additional public comments we received, we evaluated whether certain lands in the proposed critical habitat were appropriate for exclusion from this final designation pursuant to section 4(b)(2) of the Act. All areas considered were within Unit 1. As shown in Table 2, we are excluding the following areas from critical habitat designation for the spring pygmy sunfish because of their enrollment in CCAAs:

Table 2. Areas Included and Excluded from Critical Habitat Designation in Unit 1.

Specific Area	**Areas Meeting the Definition of Critical Habitat, ha (ac)**	**Areas Excluded from Critical Habitat, ha (ac)**
Subunit A	7.2 (17.9)	0 (0)
Subunit B	69.0 (170.4)	0 (0)
Subunit C	265.7 (656.6)	0 (0)
Belle Mina Farms CCAA	62.7 (155)	62.7 (155)
McDonald Farms CCAA	81.7 (202)	81.7 (202)
Horton Farm CCAA	59.1 (146)	59.1 (146)

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order (E.O.) 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Executive Order 13771

This rule is not an E.O. 13771 ("Reducing Regulation and Controlling Regulatory Costs") (82 FR 9339, February 3, 2017) regulatory action because this rule is not significant under E.O. 12866.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq*.), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq*.), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e*., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The

SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

The Service's current understanding of the requirements under the RFA, as amended, and following recent court decisions, is that Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself and, therefore, are not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in

consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation. There is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities are directly regulated by this rulemaking, the Service certifies that this critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule, we reviewed and evaluated all information submitted to us during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this critical habitat designation will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this E.O. that outlines nine outcomes that may constitute "a significant adverse effect" when compared to not taking the regulatory action under consideration.

The economic analysis finds that none of these criteria is relevant to this analysis.

Thus, based on information in the economic analysis, energy-related impacts associated with spring pygmy sunfish conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq*.), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps;

Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because it will not produce a Federal mandate of $100 million or greater in any year; that is, it is not a "significant regulatory action" under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments. By definition, Federal agencies are not considered small entities, although

the activities they fund or permit may be proposed or carried out by small entities. Consequently, we do not believe that the critical habitat designation will significantly or uniquely affect small government entities. As such, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the spring pygmy sunfish in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed and concludes that this designation of critical habitat for the spring pygmy sunfish does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this rule does not have significant federalism effects. A federalism summary impact statement is not required. In keeping

with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this critical habitat designation with, appropriate State resource agencies in Alabama. We received comments from the Geological Survey of Alabama and have addressed them under **Summary of Comments and Recommendations**, above. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, this rule does not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) will be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests

squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the spring pygmy sunfish. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq*.). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court

of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We determined that there are no tribal lands affected by this designation.

References Cited

A complete list of all references cited is available on the Internet at *http://www.regulations.gov* and upon request from the Alabama Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this rulemaking are the staff members of the Alabama Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. Amend § 17.11(h) by revising the entry for "Sunfish, spring pygmy" under FISHES in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
FISHES				
* * * * * * *				
Sunfish, spring pygmy	*Elassoma alabamae*	Wherever found	T	78 FR 60766, 10/2/2013; 50 CFR 17.95(e).[CH.]
* * * * * * *				

3. In § 17.95, amend paragraph (e) by adding an entry for "Spring Pygmy Sunfish (*Elassoma alabamae*)", in the same order that the species appears in the table at §17.11(h), to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(e) *Fishes.*

* * * * *

Spring Pygmy Sunfish (*Elassoma alabamae*)

(1) Critical habitat units are depicted for Limestone and Madison Counties, Alabama, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the spring pygmy sunfish consist of the following components:

(i) *Spring system*. Springs, and connecting spring-fed reaches and wetlands, that are geomorphically stable and relatively low-gradient. This includes headwater springs with spring heads (water source), spring runs, and spring pools that filter into shallow, vegetated wetlands.

(ii) *Water quality*. Yearly averages of water quality with optimal temperatures of 57.2 to 68 °F (14 to 20 °C); pH of 6.0 to 7.7; dissolved oxygen of 6.0 parts per million (ppm) or greater; low concentrations of free or suspended solids with turbidity measuring less than 15 Nephelometric Turbidity Units (NTU) and 20 milligrams per liter (mg/l) total suspended solids (TSS).

(iii) *Hydrology*. A hydrologic flow regime (magnitude, frequency, duration, and seasonality of discharge over time) necessary to maintain spring habitats. The instream flow from groundwater sources (springs and seeps) maintains an adequate velocity and a continuous daily discharge from the aquifer that allows for connectivity between habitats. Instream flow is stable and does not vary during water extraction, and the aquifer

recharge maintains adequate levels to supply water flow to the spring head. The flow regime does not significantly change during storm events.

(iv) *Prey base, or food.* Macroinvertebrates including *Daphnia* spp., amphipods, chironomids (non-biting midges), or small snails.

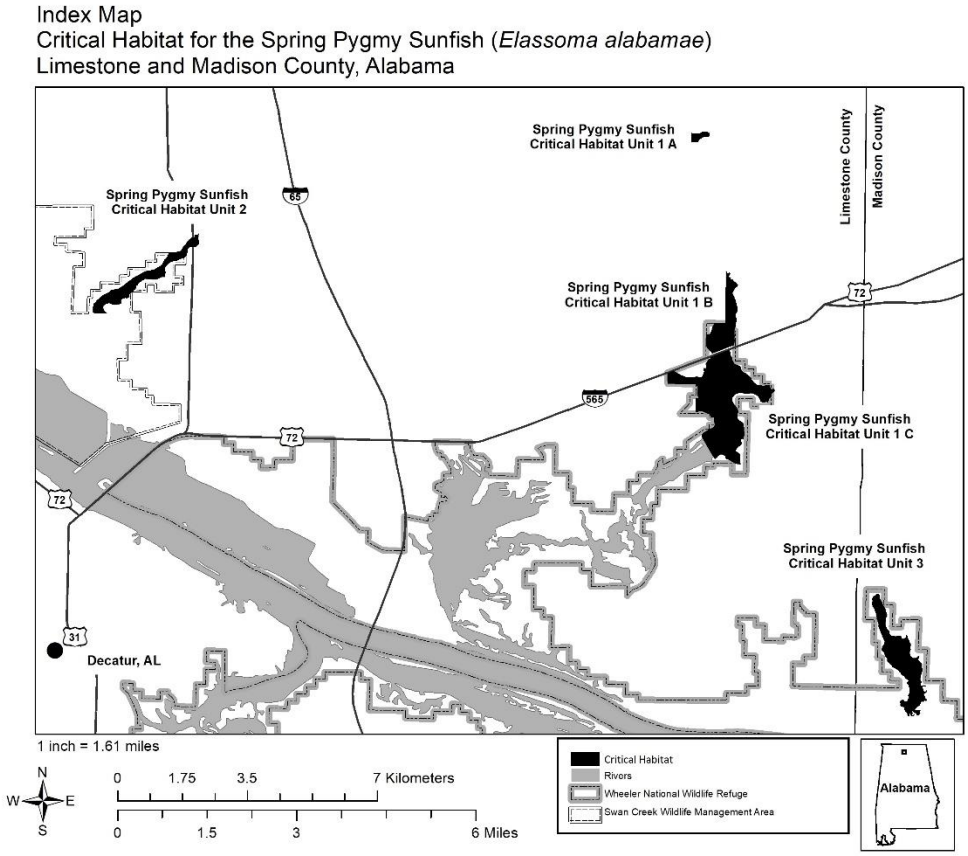
(v) *Vegetation.* Aquatic, emergent and semi-emergent vegetation along the margins of spring runs and submergent vegetation that is adequate for breeding, reproducing, and rearing young; providing cover and shelter from predators; and supporting the macroinvertebrate prey base. Important species include submergent filamentous vegetation such as *Ceratophyllum echinatum* (spineless hornwort), *Myriophyllum heterophyllum* (two-leaf water milfoil), and *Hydrilla verticillata* (native hydrilla); emergent vegetation such as *Sparganium* spp. (bur reed), *Polygonum* spp. (smartweed), *Nasturtium officinale* (watercress), *Juncus* spp. (rush), and *Carex* spp. (sedges); and semi-emergent vegetation such as *Nuphar luteum* (yellow pond lily), *Utricularia* spp. (bladderwort), and *Callitriche* spp. (water starwort).

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION].

(4) *Critical habitat map units.* Data layers defining map units were created on a base of U.S. Geological Survey digital topographic map quadrangle (Greenbrier and Mason Ridge) and a U.S. Department of Agriculture 2007 digital ortho-photo mosaic, in addition to National Wetland Inventory maps. The resulting critical habitat unit was then mapped using State Plane North American Datum (NAD) 83 coordinates. The maps in

this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site at *http://www.fws.gov/daphne*, at *http://www.regulations.gov* at Docket No. FWS–R4–ES–2013–0010, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) *Note*: Index map follows:

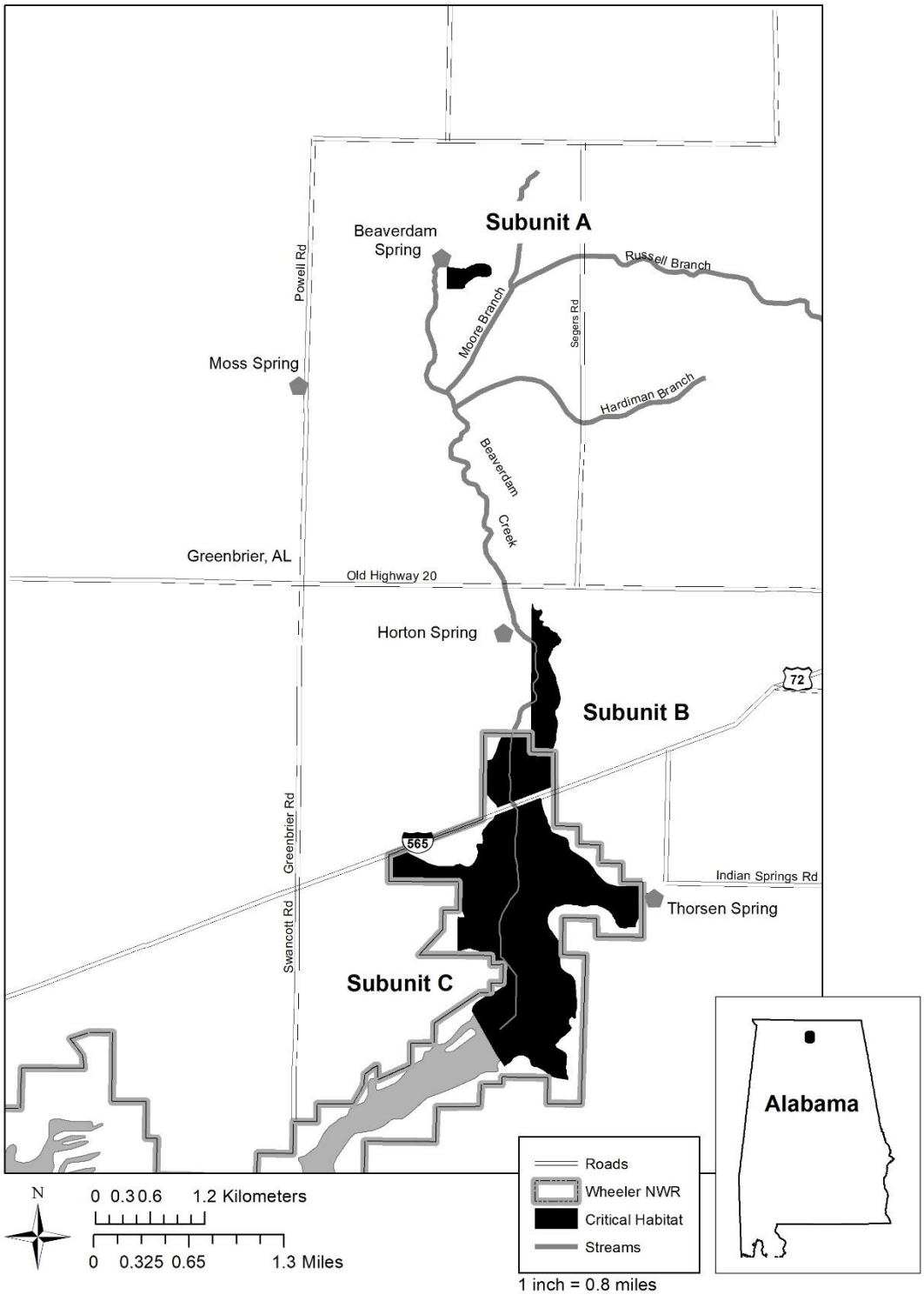


(6) Unit 1: Beaverdam Spring/Creek, Limestone County, Alabama.

(i) *General description.* Unit 1 consists of 342 hectares (845 acres) and includes a total of 5.2 kilometers (3.2 miles) of spring/stream complex in Limestone County, Alabama, northeast of Greenbrier. Unit 1 includes three subunits. Subunit A is a privately owned wetland, with an area of approximately 7.2 hectares (17.9 acres), located 0.38 kilometers (0.23 miles) west of Chestnut Heath Drive. Subunit B consists of 69 hectares (170.4 acres) and is located partly in Wheeler National Wildlife Refuge (36.7 hectares (90.6 acres)), north of the edge of I-565. The private portion of Subunit B (32.3 hectares (79.8 acres)) extends northward, from the northeast refuge boundary along the east side of the Beaverdam Spring complex, to 0.2 kilometers (0.12 miles) south of Old Highway 20. Subunit C is approximately 265.7 hectares (656.6 acres) and is located in Wheeler National Wildlife Refuge, extending 3.9 kilometers (2.4 miles) south from I-565. All of Subunit C is on refuge land except Thorsen Spring Pool (1.2 hectares (3.0 acres)), which is privately held. In total, the privately owned portion of Unit 1 consists of 0.8 kilometers (0.5 miles) of stream in an area of 41 hectares (101 acres).

(ii) Map of Unit 1 follows:

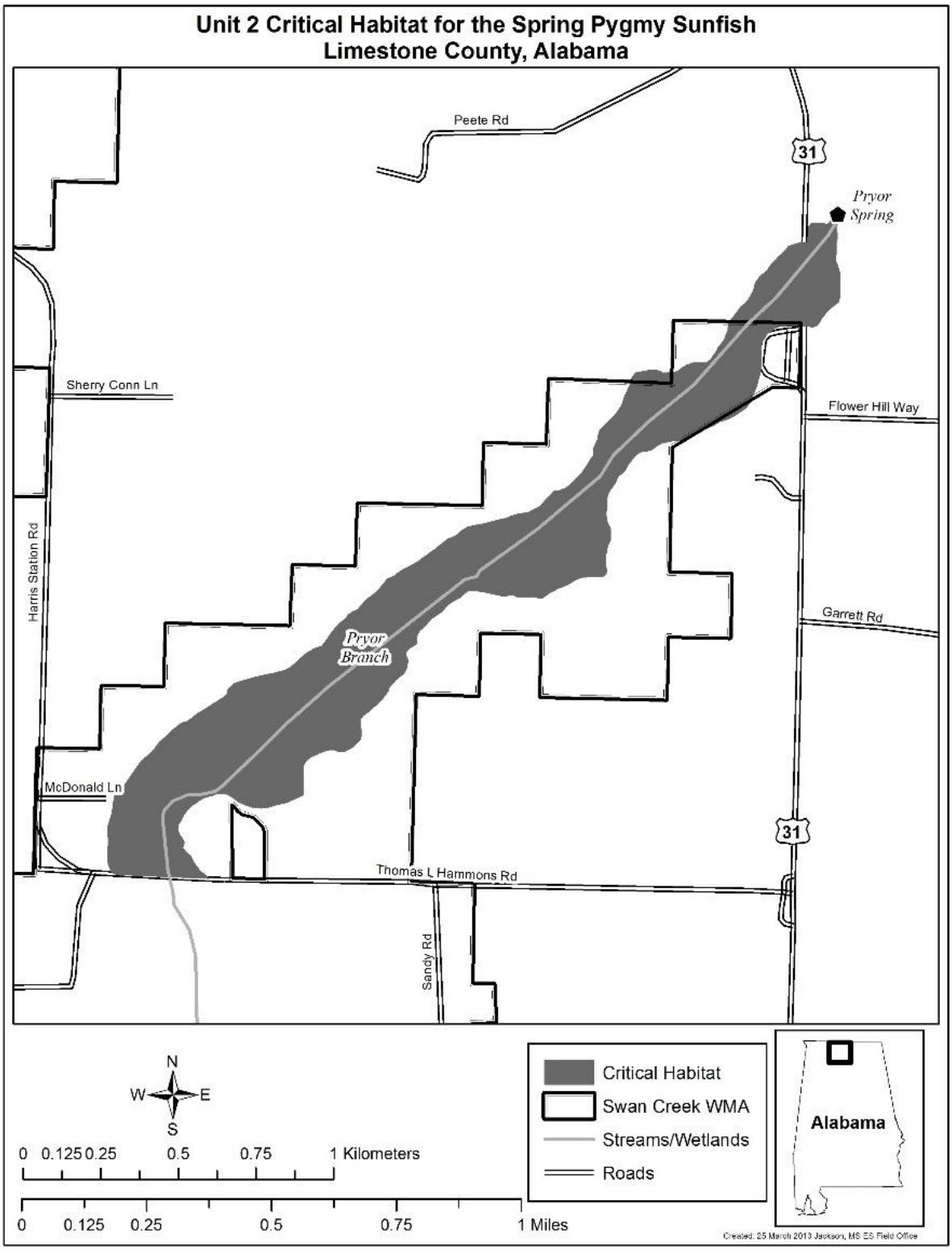
Unit 1 Critical Habitat for Spring Pygmy Sunfish
Limestone County, Alabama



(7) Unit 2: Pryor Spring/Branch, Limestone County, Alabama.

(i) *General description*. Unit 2 includes 3.4 kilometers (2.1 miles) of Pryor Spring and Pryor Branch from the spring head (water source), about 3.7 miles (5.9 kilometers) south of Tanner, Alabama, and just east of Highway 31, downstream to the bridge where it intersects with Harris Station/Thomas L. Hammons Road. This includes a total of 73.6 hectares (182 acres) in area, mostly owned by the Tennessee Valley Authority and managed by the Alabama Department of Conservation and Natural Resources as the Swan Creek Wildlife Management Area. The privately held portion of Unit 2 contains 0.24 kilometers (0.15 miles) of stream in an area of 8.1 hectares (20 acres).

(ii) Map of Unit 2 follows:

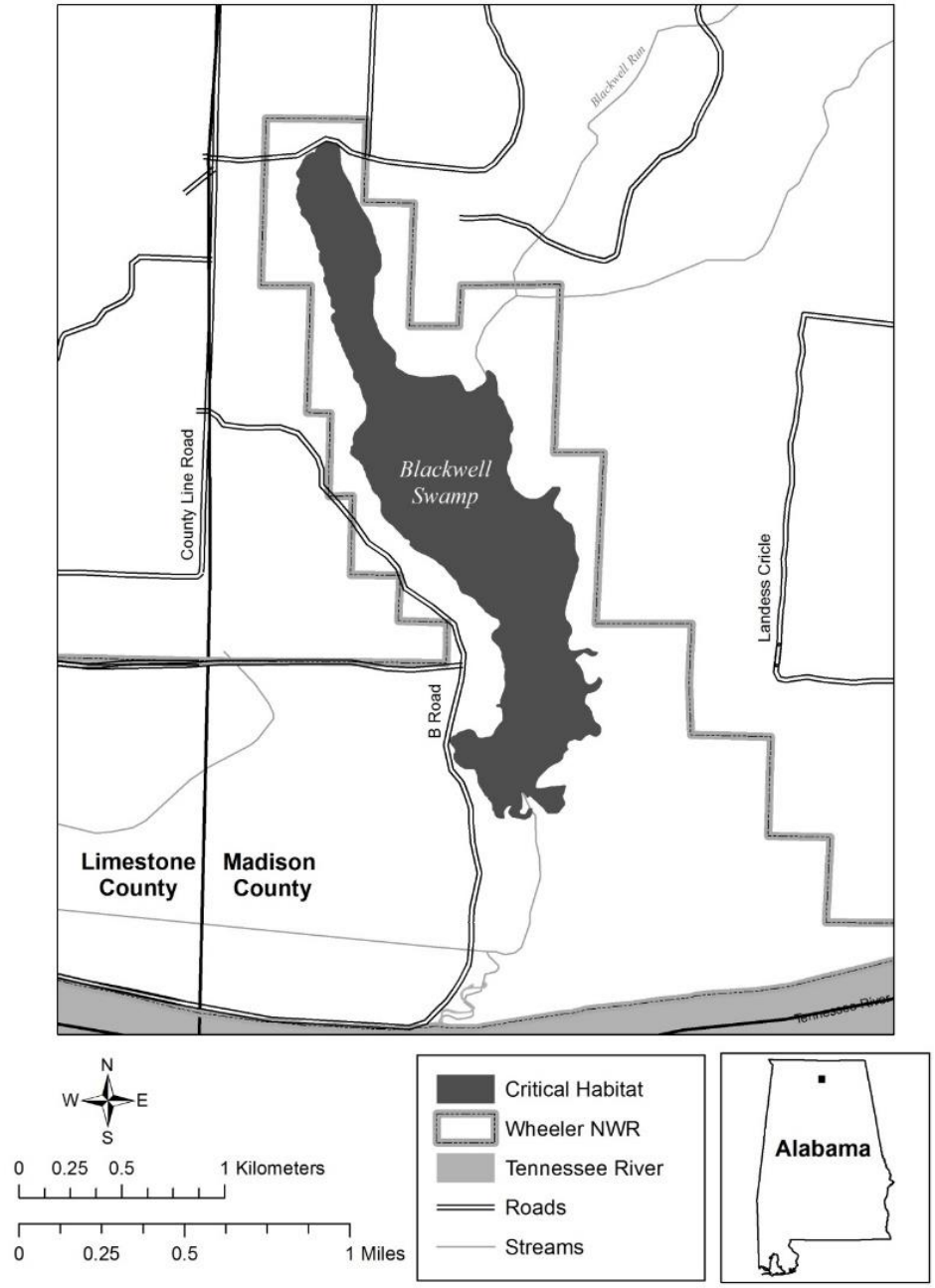

Unit 2 Critical Habitat for the Spring Pygmy Sunfish
Limestone County, Alabama
Peete Rd
31
Pryor Spring
Sherry Conn Ln
Flower Hill Way
Harris Station Rd
Garrett Rd
Pryor Branch
McDonald Ln
31
Thomas L Hammons Rd
Sandy Rd
N
W
E
S
0 0.125 0.25 0.5 0.75 1 Kilometers
0 0.125 0.25 0.5 0.75 1 Miles
Critical Habitat
Swan Creek WMA
Streams/Wetlands
Roads
Alabama
Created: 25 March 2013 Jackson, MS ES Field Office

(8) Unit 3: Blackwell Swamp/Run, Madison County, Alabama.

(i) *General description*. Unit 3 includes a total of 123 hectares (303 acres) of land and 2.3 stream kilometers (1.4 stream miles), all which is federally owned within the Wheeler National Wildlife Refuge. Unit 3 is located approximately 4.3 kilometers (2.7 miles) due west of Triana. This unit is 0.96 kilometers (0.6 miles) north of Blackwell Run's confluence with the Tennessee River; approximately 1 kilometer (0.5 miles) south of Swancott Road SW; about 1 kilometer (0.5 miles) west of Landess Circle; and just to the east of B Road/County Line Road SW.

(ii) Map of Unit 3 follows:

Unit 3 Critical Habitat for the Spring Pygmy Sunfish
Madison County, Alabama



* * * * *

Dated: May 20, 2019.

Margaret E. Everson,
Principal Deputy Director,
U.S. Fish and Wildlife Service,
exercising the authority of the Director,
U.S. Fish and Wildlife Service.

Billing Code 4333–15

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